(Washington, DC)— Congresswoman Gwen Moore today announced that Marquette University will receive $181,939 in grant funding from the Department of Health and Human Services to study a new way to engineer prosthetic ankles.

“The type of prosthetic ankle being researched would make it much easier for amputees to be able to walk normally,” Congresswoman Moore said. “Once it is fully developed, this would be a major quality-of-life improvement for those who have had the misfortune to lose a limb in combat, or due to an accident or disease.”

“This research will develop a bionic prosthetic ankle which will allow lower limb amputees to lead more active and productive lives,” said Philip Voglewede, Project Director and Assistant Professor in the Department of Engineering. “Current prostheses do not put energy into the ankle, which causes amputees to walk abnormally and tire quickly. Our approach addresses this problem by using a novel, spring-like mechanism together with a small motor to allow normal walking with less fatigue. The spring-like mechanism reduces the energy needed from the motor, allowing the prosthesis to be more compact.”

These funds will allow the engineering team at Marquette University, in collaboration with faculty at Medical College of Wisconsin, to develop a full working prototype of the prosthetic ankle, which will then be tested at the Milwaukee School of Engineering to make sure it performs well and that it is safe.

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